

By: **Nobuhiko HAYASHI et al.**  
Serial No. **09/898,043**

Group Art Unit: **2826**  
Examiner: **Johannes P. Mondt**

### **REMARKS**

Claims 1-37 are pending in this application. Claims 1-37 are rejected. Claims 1-24 are herein canceled. Claims 25 and 29 are herein amended. Attached hereto is a marked-up version of the changes made to the claims by the current amendment, captioned "Version with Markings to Show Changes Made."

#### **Claim Rejections under 35 U.S.C. §102**

Claims 1, 2, 25 and 26 are rejected under 35 U.S.C. §102(b) as being anticipated by Udagawa (U.S. Patent No. 5,886,367). Claims 14, 17, 18, 23 and 24 are rejected under 35 U.S.C. §102(e) as being anticipated by prior art as admitted by Applicants.

Claims 1-24 are herein canceled. Therefore, Applicants submit that the rejection of these claims is now moot.

~~Claims 25-27, 30, 32-34, 36 and 37 are rejected under 35 U.S.C. §102(e) as being anticipated~~  
by Sverdlov (U.S. Patent 6,266,355 B1).

Applicants herein amend claim 25 to include a further limitation that "said cladding layer of a first conduction type has a ridge portion" Applicants submit that this limitation is not taught by the cited reference. Therefore, Applicants submit that the cited reference does not anticipate the present invention.

Furthermore, Applicants note that the present invention is directed to a semiconductor laser device. Applicants further note that Sverdlov fails to disclose a semiconductor laser device having

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a ridge portion. Rather, Sverdlov is directed to the structure of a light-emitting diode (LED). Applicants submit that a semiconductor laser device is essentially different in structure and operation from a LED. Therefore, Applicants submit that one skilled in the art would not have looked to or been swayed by the contents of Sverdlov, and it would not have been obvious to use the cladding layer of Sverdlov in the semiconductor laser device having a ridge portion of Tanaka et al.

**Claim Rejections under 35 U.S.C. §103**

Claims 2, 5-10, 12 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Udagawa in view of prior art as admitted by Applicants in the disclosure of the invention.

Claims 4, 15 and 21 rejected under 35 U.S.C. §103(a) as being unpatentable over Udagawa and prior art as admitted by Applicants, and further in view of Steigerwald (JOM, volume 49, issue 9, pages 18-23 (1997)).

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~~Claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over Udagawa in view~~  
of Hashimoto et al. (6,096,394).

Claim 22 is rejected under 35 U.S.C. §103(a) as being unpatentable over Udagawa and prior art as admitted by Applicants in the disclosure as applied to claim 14 above, and further in view of Hashimoto et al.; or in the alternative, over prior art as admitted by Applicants in view of Hashimoto et al.

Claims 1-24 are herein canceled. Therefore, the above rejections under 35 U.S.C. §103(a) are moot.

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Claim 28 is rejected under 35 U.S.C. §103(a) as being unpatentable over Sverdlov in view of Steigerwald (JOM, volume 49, issue 9, pages 18-23 (1997)). Claim 29 is rejected under 35 U.S.C. §103(a) as being unpatentable over Sverdlov in view of Tanaka et al. (4,961,197). Claim 31 is rejected under 35 U.S.C. §103(a) as being unpatentable over Sverdlov in view of Bour (5,812,576) and Chen et al. (6,177,359 B1). Claims 35 is rejected under 35 U.S.C. §103(a) as being unpatentable over Sverdlov in view of Tanaka et al. (5,974,069).

Applicants note that the present invention is directed to a semiconductor laser device. Applicants further note that Sverdlov fails to disclose a semiconductor laser device having a ridge portion. Rather, Sverdlov is directed to the structure of a light-emitting diode (LED). Applicants submit that a semiconductor laser device is essentially different in structure and operation from a LED. Therefore, Applicants submit that one skilled in the art would not have looked to or been swayed by the contents of Sverdlov, and it would not have been obvious to use the cladding layer of Sverdlov in the semiconductor laser device having a ridge portion of Tanaka et al.

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For at least the above reasons, Applicants respectfully submit that the claimed invention is patentably distinguished from the cited references. Applicants earnestly request withdrawal of the rejections and passage of the claims to issue.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees that may be due with respect to this paper to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosure: Version with markings to show changes made

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

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**IN THE CLAIMS:**

**Please amend claims 25 and 29 as follows:**

25. (Amended) A nitride based semiconductor laser device comprising:

a light emitting layer composed of a Group III nitride based semiconductor and including an active layer; and

a cladding layer of a first conduction type composed of a Group III nitride based semiconductor, formed on said light emitting layer, having a larger band gap than said active layer, and having a lower refractive index than the active layer,

said cladding layer of a first conduction type has a ridge portion, and

the thickness of said cladding layer of a first conduction type being less than 0.3  $\mu\text{m}$ .

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29. (Amended) The nitride based semiconductor laser device according to claim 25,

wherein

~~said cladding layer of a first conduction type has a ridge portion, and~~

the thickness of said ridged portion is less than 0.3  $\mu\text{m}$ .